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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOHN ZHU and MICHELE ANN JANETTE

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Appeal 2008-0307  
Application 09/840,328<sup>1</sup>  
Technology Center 2100

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Decided: March 11, 2008

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Before JAMES D. THOMAS, HOWARD B. BLANKENSHIP, and  
JEAN R. HOMERE, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1 through 30. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

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<sup>1</sup> Filed on Apr. 23, 2001. The real party in interest is Sony Corp.

### The Invention

Appellants invented a method and an Internet packet (IP) mobile wireless communication system (10) for allowing client devices (12) to remotely and securely access subscription services. As depicted in Figures 1 and 2, upon receiving an IP-based request from the transceiver (12A) of a client (12), the transceiver (15) of a targeted base station (14) forwards the IP address of the requesting client device (12) to a foreign agent (30) of the base station (14) to locate corresponding authentication information and accounting data pertaining to the requesting client (12). The base station (14) then combines the IP address of the client device (12) with the ID of the foreign agent (30), and subsequently dispatches the combined IP address-foreign agent ID to the home agent (24) of a network operation center (NOC) (18). Upon authenticating the client, the NOC (18) provides subscription services to the requesting client. (Spec. 6-9.)

An understanding of the invention can be derived from exemplary independent claims 1, 12 and 24, which read as follows:

1. An Internet packet (IP) mobile wireless communication system comprising:

at least one network operation center (NOC) including at least one home domain having at least one associated home agent;

plural base stations communicating with the NOC, each base station having at least one router and at least one foreign domain having at least one foreign agent; and

plural client devices in wireless IP communication with at least one base station, whereby a base station detecting a client device uses its associated foreign agent to communicate at least one access request to the

NOC, at least one client device being associated with at least one IP address, the IP address being combined with an identification of the foreign agent of the foreign domain of a base station, the access request including the combined client device IP address/foreign agent identification.

12. A mobile wireless IP-based communication network for providing up to the minute subscription services to client devices, comprising:

at least one network operation center (NOC); and

plural base stations communicating with the NOC and in wireless communication with client devices communicating with the network, the NOC providing subscription services to client devices via the base stations, the base stations receiving access authorizations from the NOC to permit client devices to communicate with the network, the base stations storing at least some accounting data based on client device usage of a base station.

24. A method for providing subscription services to client devices via a wireless network, comprising:

sending data to plural base stations; and

transmitting the data in IP format to at least one client device in wireless communication with at least one base station using a data transfer rate in excess of one megabyte per second.

In rejecting the claims on appeal, the Examiner relied upon the following prior art:

Siu                    US 6,522,641 B1                    Feb. 18, 2003

The Examiner rejected the claims on appeal as follows:  
Claims 1 through 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Siu.

## FINDINGS OF FACT

The following findings of fact (FF) are supported by a preponderance of the evidence.

*Siu*

1. Siu discloses an integrated data centric network (IDCN) (i.e. integration of voice, data, and video) that uses IP and ATM switches (ICDN switches) to provide seamless coverage and wireless access to multiple subscribers at a plurality of base stations. (Col. 1, ll. 53-67.)
2. As depicted in Figure 3, the base stations for corresponding clients are connected together as a first layer of a network via ICDN switches. (Col. 4, ll. 62-65.)
3. As shown in Figure 4, the base stations are connected via the ICDN switches as a second layer in the ring network. (Col. 4, ll. 65-67.)
4. ATM-OC 3c UNI network interface is provided for ATM connections. 100BaseT network interface is provided for IP connections. (Col. 5, ll. 48-50.)
5. As shown in Figure 3, base stations (BS) include billing data.

## PRINCIPLES OF LAW OBVIOUSNESS

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie*

obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.”) (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

The Supreme Court in *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966), stated that the following factual inquiries underpin any determination of obviousness:

Under § 103, [1] the scope and content of the prior art are to be determined; [2] differences between the prior art and the claims at issue are to be ascertained; and [3] the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such (4) secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.

Where the claimed subject matter involves more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement, a holding of obviousness must be based on “an apparent reason to combine the known elements in the fashion claimed.” *KSR Int’l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740-41 (2007). That is, “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, 127 S. Ct. at 1741, (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Such reasoning can be based on interrelated teachings of multiple patents, the effects of demands known to the design community or present in the marketplace, and the background knowledge possessed by a person having ordinary skill in the art. *KSR*, 127 S. Ct. at 1740-41.

## ANALYSIS

### Claims 1 through 11

Independent claim 1 recites in relevant part combining an IP address of a requesting client device with the identification of a foreign agent of the foreign domain of a base station. (App. Br., Claims Appendix.) Appellants argue that the prior art of record does not teach that limitation. Particularly, Appellants argue that neither Siu nor any part of the prior art teaches the claimed foreign agent, let alone combining the foreign agent identification with a client device IP address. (App. Br. 4-5.) Additionally, Appellants argue that other references cited by the Examiner as evidence that the claimed limitation is well-known in the art do not conform with the legal requirement set forth in MPEP § 2143.01 since there is insufficient rationale to combine such references with Siu. (*Id.* 6.)

The Examiner, in response, avers that Siu's disclosure of a system for communicating throughout multiple networks relies heavily on conventional uses of foreign agents, as known by the ordinarily skilled artisan, to facilitate such communication. Further, the Examiner cited to a number of references as evidence that such uses of foreign agents are well known in the art. The Examiner consequently concludes that Siu renders the claimed invention unpatentable. (Ans. 9-11.)

Therefore, the pivotal issue before us is whether Appellants have shown that the Examiner erred in concluding that Siu's communication system, when viewed in the context of conventional network systems at the

time of the present invention, would have suggested to the ordinarily skilled artisan the use of a foreign agent, as recited in claim 1? We answer this inquiry in the affirmative.

Appellants merely allege that Siu and the supporting prior art cited by the Examiner do not teach the claimed limitation. Appellants, however, failed to provide an analysis of the cited references to show how the teachings upon which the Examiner relies fall short of suggesting the claimed foreign agent, and its underlining use. Appellants' mere arguments and allegations are not sufficient to persuasively overcome the Examiner's findings. Therefore, Appellants have not shown that Examiner erred in finding that Siu and the supporting references teach combining the identification of a foreign agent of a base station and the IP address of a client device. Plainly stated, we sustain the Examiner's finding that the foreign agent and its underlining use are old in the art.

Appellants' allegation that the Examiner reliance on such prior art does not conform with legal requirements is not persuasive. The Supreme Court has held that in analyzing the obviousness of combining elements, a court need not find specific teachings, but rather may consider "the background knowledge possessed by a person having ordinary skill in the art" and "the inferences and creative steps that a person of ordinary skill in the art would employ." *See KSR Int'l*, at 1740-41. To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions." *Id.* at 1740. As set forth in the preceding paragraph, the foreign agent of the base station is a prior art

element that is being used in a conventional network environment to perform its established function of being combined with an IP address to predictably result in a conventional IP packet.

Additionally, we note that Appellants' arguments regarding the informational content of the client's access request to the NOC are not persuasive. Nowhere in the cited claim is there an indication that the access request and the content thereof are being used to functionally achieve something. The informational content of access request is therefore nonfunctional descriptive material, which is entitled to no patentable weight. *See Manual of Patent Examining Procedure* (MPEP) § 2106.01 (8th ed., Rev. 5, Aug. 2006).

When "non-functional descriptive material" is recorded or stored in a memory or other medium (i.e., substrate), it is treated as analogous to printed matter cases where what is printed on a substrate bears no functional relationship to the substrate and is given no patentable weight. *See In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983) ("Where the printed matter is not functionally related to the substrate, the printed matter will not distinguish the invention from the prior art in terms of patentability. Although the printed matter must be considered, in that situation it may not be entitled to patentable weight."). *See also Ex parte Curry*, 84 USPQ2d 1272 (BPAI 2005) (nonprecedential) (Federal Circuit Appeal No. 2006-1003; affirmed without written opinion Jun. 12, 2006). The Examiner need not give patentable weight to descriptive material absent a new and unobvious functional relationship between the descriptive material and the substrate. *See In re Lowry*, 32 F.3d 1579, 1582-83 (Fed. Cir. 1994); *In re*

*Ngai*, 367 F.3d 1336, 1338 (Fed. Cir. 2004). *See also Ex parte Mathias*, 84 USPQ2d 1276 (BPAI 2005) (nonprecedential) (Federal Circuit Appeal No. 2006-1103; affirmed without written opinion Aug. 17, 2006).

It follows that Appellants have not shown that the Examiner erred in concluding that Siu renders independent claim 1 unpatentable.

Appellants did not provide separate arguments with respect to the rejection of dependent claims 2 through 11. Therefore, we select independent claim 1 as being representative of the cited claims. Consequently, these dependent claims fall together with representative claim 1. 37 C.F.R. § 41.37(c)(1)(vii).

#### Claims 12 through 23

Appellants argue that Siu does not teach storing accounting data in the base stations. (App. Br. 5-6.) As set forth in the findings of fact section, Siu teaches that the base stations include billing data. (FF. 5.) One of ordinary skill would readily recognize that billing data is one form of accounting data. It follows that Appellants have not shown that the Examiner erred in concluding that Siu renders claim 12 unpatentable.

Appellants did not provide separate arguments with respect to the rejection of dependent claims 13 through 23. Therefore, we select independent claim 12 as being representative of the cited claims. Consequently, these dependent claims fall together with representative claim 12. 37 C.F.R. § 41.37(c)(1)(vii).

Claims 24 through 30

Appellants argue that Siu does not teach a base station using a data transfer rate in excess of one megabyte per second. (App. Br. 5.) As set forth in the findings of fact section, Siu teaches that the base stations use 100 BaseT interface to support the IP switch. (FF. 4.) As recognized by the Examiner (Ans. 9.), one of ordinary skill would readily recognize that a switch that uses a 100 BaseT interface transfers data at 100 megabytes per second. Further, the ordinarily skilled artisan would have found it obvious to use a faster transmission medium since such use would predictably result in reducing the time to transfer data in the wireless network. It follows that Appellants have not shown that the Examiner erred in concluding that Siu renders claim 24 unpatentable.

Appellants did not provide separate arguments with respect to the rejection of dependent claims 25 through 30. Therefore, we select independent claim 24 as being representative of the cited claims. Consequently, these dependent claims fall together with representative claim 24. 37 C.F.R. § 41.37(c)(1)(vii).

CONCLUSION OF LAW

Appellants have not shown that the Examiner erred in concluding that Siu renders claims 1 through 30 unpatentable under 35 U.S.C. § 103(a).

DECISION

We affirm the Examiner's decision rejecting claims 1 through 30.

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Application 09/840,328

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

pgc

ROGITZ & ASSOCIATES  
750 B STREET  
SUITE 3120  
SAN DIEGO CA 92101